

TIME INTERVAL BETWEEN SNAKE BITE AND ANTI-SNAKE VENOM (ASV) ADMINISTRATION AS A PROGNOSTIC INDICATOR IN SNAKE BITE ENVENOMATION

ABSTRACT

BACKGROUND :

Snake bite is an acute life threatening medical emergency throughout the world . Anti Snake Venom (ASV) administration is the only definitive treatment which acts by neutralising the circulating venom in the blood and tissue fluid . Early administration of ASV is therefore essential to neutralise the maximum circulating venom before it is fixed in the tissues.

AIMS AND OBJECTIVES :

The aim of the study is to evaluate whether early administration of ASV increases its efficacy in reducing the complications in snake bite cases and to determine the “GOLDEN TIME” - OPTIMUM “BITE TO NEEDLE TIME” of ASV administration in reversing the complications of snake bite envenomation.

MATERIALS AND METHODS :

It is an observational , descriptive study of longitudinal design involving 100 cases of snake bite envenomation admitted in The Department of General Medicine, Coimbatore Medical College , done in the period from July 2016 to June 2017 .The cases were evaluated with thorough clinical examination and laboratory investigations . Any correlation between timing of ASV administration and the parameters like development of complications, duration of stay, total requirement of ASV vials and the final outcome were studied.

RESULTS :

100 patients with snake bite envenomation were included in the study which was done between JULY 2016 to JUNE 2017 at Coimbatore Medical College Hospital.

Majority of patients were males in the age group of 31- 40 years. Majority of snake bites were due to Krait and Cobra bites being the least. Most common complication was cellulitis and the least common were DIC and respiratory failure. Complications were higher in the patients who received ASV very late. i.e more than 6 hours from the bite. Duration of hospital stay was also more in those who received ASV very late.

The total amount of ASV vials required was higher among those with “BITE TO NEEDLE TIME” of more than 6 hours. Most of the deaths were due to Krait and all the deaths were in the patients who received ASV after 12 - 24 hours. Overall , the patients who received ASV within 6 hours of snake bite had better prognosis than those who received ASV after 6 hours .

CONCLUSION :

This study has revealed that “THE BITE TO NEEDLE TIME” is a better prognostic indicator in the snake bite envenomation. The earlier the administration of ASV, lesser the complications and duration of stay and better the prognosis. The incidence of complications was directly proportional to the duration of venom in the blood prior to its neutralisation by ASV .Based on the findings of the present study, it is suggested that the early institution of ASV is beneficial to prevent the complications like AKI , DIC and respiratory paralysis. The delay in ASV administration increases the incidence of AKI, DIC, respiratory paralysis as observed from the present study. Hence it is important to make the availability of ASV universal in the areas where the incidence of snake bite is high and to adequately train the health care providers about the appropriate management of patients with snake bite envenomation in order to decrease the morbidity and mortality.

KEYWORDS :

Snake bite envenomation, Anti Snake Venom (ASV), Whole Blood Clotting Time (WBCT), Bite to needle time.